

a main display unit coupled to said host computer, said main display unit configured to receive and display first information associated with the application when said host computer launches the application; and

an auxiliary display unit coupled to said host computer and distinct from said main display unit, said auxiliary display unit configured to receive and display second information associated with a task bar or system tray of the operating system running on said host computer.

29
could

55. (New) A computer readable medium for use with a computer system having a host computer, a main display unit coupled to said host computer, and an auxiliary display unit physically remote from said main display unit and said host computer and coupled to said host computer, said auxiliary display unit including a display and an input user interface, said computer readable medium having computer-executable instructions for performing steps comprising:

displaying first information associated with a first active application on said main display unit;

displaying a graphical user interface associated with a second active application on the display of said auxiliary display unit;

receiving input through the input user interface of the auxiliary display for controlling aspects of the second active application represented in the graphical user interface and requesting second information associated with the application; and

outputting the second information by way of said auxiliary display unit.

REMARKS

The office action of February 15, 2002 has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested. Claims 1-3, 5-11, 15-24, 26, 28-32 and 36 remain pending. Claims 4, 12-14, 25, 27, and 33-35 have been canceled without prejudice or disclaimer and new claims 37-55 have been added.

Applicants have amended the specification to correct minor informalities discovered therein. Also, applicants have amended the claims to correct minor informalities discovered therein.

Claims 1-36 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,191,758 to Lee. Applicants respectfully traverse this rejection.

Claims 1-3, 5-11, 15-19, and 36-46

As amended, independent claims 1 and 36 each call for, among other features, an auxiliary display unit including an input user interface dedicated to the auxiliary display unit and configured to receive inputs allowing user interaction with the second application in response to the second information being displayed on the display. In contrast, referring to Fig. 5, the auxiliary display device 54 does not include the keyboard 56. Indeed, the keyboard 56 of Lee is a standalone device that forms part of the computer. Further, the keyboard 56 is not dedicated to the auxiliary display device 54. In fact, the keyboard 56 receives inputs that are routed through the keyboard controller 518 to the processor 502 and/or controller 504 resulting in control signals eventually being routed to the display controller 516, which controls both the main display device 52 and the auxiliary display device 54. Similarly, in Fig. 2, the keyboard inputs received by the processor 202 and/or controller can result in control signals being routed to the main display device 22, the auxiliary display device 24 or both. In addition, Lee is totally silent with respect to an input user interface configured to receive inputs allowing user interaction with the second application in response to the second information being displayed on the display.

For at least the foregoing reasons, Lee neither teaches nor suggests an auxiliary display unit including an input user interface dedicated to the auxiliary display unit and configured to receive inputs allowing user interaction with the second application in response to the second information being displayed on the display as recited in independent claims 1 and 36.

Claims 2, 3, 5-11, 15-19, and 39-46, which ultimately depend from claim 1, are patentably distinct from Lee for the reasons set forth above, and further in view of the additional advantageous features recited therein. For example, claim 7 calls for the display of the auxiliary display unit being larger than the display of the main display unit, a feature that is not taught or

suggested by Lee. Also, Lee lacks a teaching of the input user interface being configured to receive user authorization information from a user, the user authorization information being processed to determine whether the user is authorized to change a variable associated with the second application as recited in new claim 38 and the input user interface being configured to receive user authorization information from a user, the user authorization information being processed to determine a level of interaction with the second application for which the user is authorized as recited in new claim 39. Also, teachings of the auxiliary display unit being physically remote from the main display unit as recited in new claim 43 or portable as called for in new claim 45 cannot be found in Lee.

Claims 20-24 and 26

As amended, the method of independent claim 20 is directed to controlling the display of information associated with an active application in a computer system having a host computer, and a first display unit and second display unit coupled to the host computer. The claimed method includes determining whether the second display unit has available capacity to display information associated with the application, sending the information associated with the application to the second display unit for display when the second display unit has available capacity, and sending the information associated with the application to said first display unit for display when the second display unit has no available capacity to display the information.

Lee fails to teach or suggesting determining whether a display unit has *available capacity* to display information associated with an application as recited in claim 20. Lee merely describes making a determination regarding “which display device is selected according to the display selection information of the application program or display selection information input by the user.” Col. 5, ll. 45-48. Thus, for at least this reason, Lee does not provide a teaching of every element of independent claim 20 and claims 21-24 and 26, which depend therefrom.

Claims 28-32

Independent claim 28 is directed to a method for use in a computer system having a host computer, a main display unit coupled to the host computer, and an auxiliary display unit

coupled to the host computer, the auxiliary display unit including a display and an input user interface. The method includes, among other features, displaying a graphical user interface associated with an application on the display of the auxiliary display unit, receiving an input from a user through the input user interface of the auxiliary display unit, the input requesting second information associated with the application, and displaying the second information on the auxiliary display unit. As discussed above with respect to claims 1 and 36, Lee neither teaches nor suggests an auxiliary display including an input user interface. Thus, it follows that Lee lacks a teaching of receiving an input from a user through the input user interface of the auxiliary display unit, the input requesting second information associated with the application as recited in claim 28. For at least this reason, claim 28 and claims 29-32, which ultimately depend from claim 28, are considered patentably distinct from Lee.

Regarding new claim 55, since Lee does not teach or suggest an auxiliary display including an input user interface, it follows that Lee does not suggest a computer readable medium having computer-executable instructions including receiving input through the input user interface of the auxiliary display unit for controlling aspects of a second active application represented in the graphical user interface and requesting second information associated with the application as claimed.

New Claims 47-53

Independent amended claim 47 calls for, among other features, an auxiliary display unit configured to receive second information from an external network associated with a second active application in said personal computer system, the auxiliary display unit including, a display for displaying the second information, a processing unit for receiving and processing instructions received from the personal computer, and a modem configured to couple the auxiliary display unit to the external network responsive to instructions received from the personal computer or the processing unit, without connecting to the external network through the personal computer. The auxiliary display device of Lee fails to include at least a processing unit and modem as recited in independent claim 47. For at least this reason, Lee does not result in the claim 47 invention or the invention of claims 48-53, which ultimately depend from claim 47. The

dependent claims call for other advantageous features that are absent from Lee. For example, claim 51 recites that the personal computer and the auxiliary display unit are separately addressable by the external network and claim 52 recites that the personal computer and the auxiliary display unit can independently and contemporaneously communicate over the external network or different external networks without sharing the same bandwidth.

New Claim 54

New claim 54 is fully supported by the specification and considered allowable over the art of record. For example, Lee is wholly devoid of any teaching or suggestion of an auxiliary display unit configured to receive and display information associated with a task bar or system tray of an operating system running on a host computer as recited.

CONCLUSION

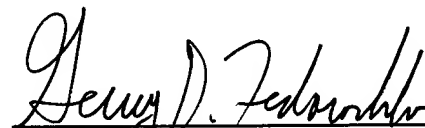
All rejections having been addressed, applicants respectfully submit that the instant application is in condition for allowance, and respectfully solicit prompt notification of the same.

Respectfully submitted,

BANNER & WITCOFF, LTD.

Dated: 30 April 2002

By:



Gary D. Fedorochko

Registration No. 35,509

1001 G Street, N.W.
Washington, D.C. 20001-4597
(202) 508-9100

GDF:lab

MARKED-UP VERSION OF AMENDMENTS MADEIN THE SPECIFICATION:

Please replace the paragraphs beginning on page 13, line 16 and ending on page 15, line 2 with the following paragraphs.

In addition as shown in the Fig. 4 embodiment, a modem 315 (e.g., 56k) may be coupled to the auxiliary display unit CPU 316 and the interface 310. Responsive to a command received from the host computer 200 or the CPU 316, the modem 315 can connect the auxiliary display unit 307 to the Internet or other data communication networks without having to route the information through the host computer 200. This implementation may be particularly beneficial when multiple Internet connections (e.g., phone lines, DSL, cable-modem, ISDN) are accessible. That is, a user of the auxiliary display unit 307 may not have to share bandwidth with a user of the main display monitor who accesses the Internet via the host computer 200. The host computer 200 can send commands to the auxiliary display unit 307 to initiate its own connection to the Internet. Also, the auxiliary display unit 307 may be separately addressable and capable of receiving information directly from the Internet such as "push" type data including stock ticker information, sports scores, news, etc.

The auxiliary display unit 307 may be set to receive display information that may have been part of the domain of the main display unit 207 in conventional computer system environments. For example, the responsibility for displaying information regarding separate applications (e.g., stock tickers, weather reports, and traffic reports) may be assigned to the auxiliary display unit 307. Also, the auxiliary display unit 307 could receive display information normally associated with the task bar, system messages and notification of events (e.g., time, power status, email and messaging notification, printer information, volume control, dialog box notifications of system events etc.) on the main display unit ~~307~~207. In an illustrative embodiment, the auxiliary display unit 307 may receive display information for a "system tray" in an OS such as Win9x/NT™ from Microsoft® Corporation of Redmond, Washington. According to another illustrative embodiment, the display panel of the auxiliary display unit can

MARKED-UP VERSION OF AMENDMENTS MADE

function as the UI for Internet radio and television, video, “push information”, an MP3 player or even become the hardware equivalent of a Windows® media player distributed by Microsoft® Corporation. Depending upon the characteristics of the auxiliary display unit, it may be scaled to provide a UI for certain functionality that is richer than what may be available with the main display unit. The auxiliary display panel UI may span from simple LED notifications to text-to-speech conversion of incoming email messages, to a full UI with a touch panel interface and a graphics picture frame.

Please replace the paragraph beginning on page 17, line 15 and ending on page 18, line 2 with the following paragraph.

According to an embodiment of the present invention, when the main display is in a screensaver or off mode or the host computer is not on or in a hibernate mode, sufficient hardware and software functionality can be provided in the auxiliary display unit to allow the auxiliary display unit to bypass the host computer and connect directly to the server (Internet or local) to operate autonomously, that is perform a specific application such as checking email status. Such a mode of operation can function with external cameras. For example, if a doorbell rings, the user can view who is at the door with a ~~stand-alone~~stand-alone auxiliary display unit ~~can be~~ capable of displaying video images (still and moving). Further, such a standalone auxiliary display unit may also display JPEG or other image formats and function as an electronic picture frame.

MARKED-UP VERSION OF AMENDMENTS MADEIN THE CLAIMS:

1. (Amended) A personal computer system comprising:
a personal computer;
a main~~first~~ display unit coupled to said personal computer, said main~~first~~ display unit configured to receive first ~~display~~-information associated with~~from~~ a first application launched by said personal computer and displaying the first ~~display~~-information; and
an auxiliary~~second~~ display unit coupled to said personal computer and distinct from said main~~first~~ display unit, said auxiliary~~second~~ display unit configured to receive second ~~display~~ information associated with~~from~~ a second application launched by said personal computer, said auxiliary display unit including and
a display for displaying the second ~~display~~-information, and
an input user interface dedicated to said auxiliary display unit and configured to receive inputs allowing user interaction with the second application in response to the second information being displayed on said display.
2. (Amended) The personal computer system according to claim 1, wherein said personal computer, said main~~first~~ display unit and said ~~second~~-auxiliary display unit are integrated together in a single physical structure.
3. (Amended) The personal computer system according to claim 1, wherein said main~~first~~ display unit and said auxiliary~~second~~ display unit are not physically attached to each other.
5. (Amended) The personal computer system according to claim 4~~1~~, further comprising a wireless interface for coupling said auxiliary~~second~~ display unit to said personal computer.

MARKED-UP VERSION OF AMENDMENTS MADE

6. (Amended) The personal computer system according to claim 41, wherein said ~~second display unit includes a display screen and an input user interface~~ is configured to receive an input to change a variable associated with the second application.

7. (Amended) The personal computer system according to claim 41, wherein said ~~mainfirst display unit includes a display, and said second display unit each has a display screen,~~ the display ~~screen~~ of said ~~second auxiliary~~ display unit being larger than the display ~~screen~~ of said ~~mainfirst~~ display unit.

8. (Amended) The personal computer system according to claim 41, wherein ~~thea~~ display ~~screen~~ of said ~~auxiliarysecond~~ display unit is a liquid crystal display or an electroluminescent panel.

9. (Amended) The personal computer system according to claim 41, wherein the second application is a messaging application.

10. (Amended) The personal computer system according to claim 442, wherein the second application is an audio, video or multimedia player application, and said input user interface is configured to receive inputs for controlling aspects of the second application represented in the graphical user interface.

11. (Amended) The personal computer system according to claim 41, wherein said input user interface of said auxiliarysecond display unit ~~has a user interface with includes~~ features not available with an input user interface associated with said ~~mainfirst~~ display unit.

15. (Amended) The personal computer systemmethod according to claim 14, ~~wherein said computer system further comprises~~ a ~~secondthird~~ auxiliary display unit coupled to said personal computer and distinct from said main display unitfirst and said auxiliarysecond

MARKED-UP VERSION OF AMENDMENTS MADE

display unit, said ~~third~~ second auxiliary display unit configured to receive third ~~display~~ information from a third application launched by said personal computer and displaying the third ~~display~~ information.

16. (Amended) The personal computer system~~method~~ according to claim 15, wherein said second auxiliary ~~third~~ display unit is further configured to receive the first ~~display~~ information and/or the second ~~display~~ information.

17. (Amended) The personal computer system~~method~~ according to claim 16, wherein said personal~~host~~ computer is configured to dynamically control which ~~display~~ information said second auxiliary~~third~~ display unit receives.

18. (Amended) The personal computer system~~method~~ according to claim 16, wherein said personal~~host~~ computer is configured to determine whether said second auxiliary~~third~~ display unit has sufficient screen~~display~~ space available to receive the first or second ~~display~~ information.

19. (Amended) The personal computer system~~method~~ according to claim 16, wherein said personal~~host~~ computer is configured to determine whether a user of said second auxiliary~~third~~ display unit is authorized to receive the first or second ~~display~~ information.

20. (Amended) In a computer system having a host computer, and a first display unit and second display unit coupled to said host computer, a method for controlling the display of information associated with a active~~launched~~ application, said method comprising ~~the steps~~ of:

determining whether the second display unit has available capacity~~is available~~ to display~~receive~~ information associated with the application~~from said host computer~~;

MARKED-UP VERSION OF AMENDMENTS MADE

sending ~~the display~~ information associated with the application to the second display unit for display when the second display unit has is available capacity ~~to receive information from said host computer~~; and

sending the ~~display~~ information associated with the application to said first display unit for display when ~~there~~ second display unit has no is available capacity to display the ~~to receive information from said host computer~~.

21. (Amended) The method according to claim 20, further comprising ~~the step of~~ sending the ~~display~~ information associated with the application to said first display unit for display when ~~the~~ a second display unit has is available capacity to receive display the information ~~from said host computer~~.

22. (Amended) The method according to claim 20~~1~~, wherein when ~~the~~ a second display unit has is available capacity to display there ~~receive~~ information associated with the application ~~from said host computer~~, further comprising ~~the step of~~ sending second display information associated with the application to said first display unit for display, the second ~~display~~ information differing from the ~~display~~ information sent to said second display unit.

23. (Amended) The method according to claim 20, wherein the ~~information~~ application is ~~an~~ a graphical user interface for ~~an~~ audio, video or multimedia player ~~application~~.

24. (Amended) The method according to claim 20, wherein the information is a notification associated with ~~application~~ is a messaging application.

26. (Amended) The method according to claim 20, wherein said ~~step of~~ determining further comprises determining whether the second display unit has sufficient display space to display the information.

MARKED-UP VERSION OF AMENDMENTS MADE

28. (Amended) In a computer system having a host computer, ~~and a main display unit coupled to said host computer,~~ and an auxiliary display unit coupled to said host computer, said auxiliary display unit including a display and an input user interface, a method ~~for displaying information associated with an active application, said method comprising the steps of:~~

displaying first information associated with an active application on said main display unit;

~~transmitting information associated with an active application from said host computer to said auxiliary display unit; and~~

displaying a graphical user interface associated with the information application on the display of said auxiliary display unit;

receiving an input from a user through the input user interface of said auxiliary display unit, the input requesting second information associated with the application; and

displaying the second information on said auxiliary display unit.

29. (Amended) The method according to claim 28, wherein the graphical user interface includes a notification associated with a messaging application~~after said step of displaying, said method further comprising the step of launching the active application responsive to an input.~~

30. (Amended) The method according to claim 28~~9~~, ~~wherein responsive to said step of launching, said method further includes the step of displaying additional information associated with the active application on said auxiliary display unit~~ further including determining whether the user is authorized to receive the second information and only displaying the second information responsive to determining that the user is authorized.

MARKED-UP VERSION OF AMENDMENTS MADE

31. (Amended) The method according to claim 3029, wherein said determining includes receiving an authorization input from said user~~further comprising the step of receiving the input at an input device associated with said auxiliary display unit.~~

32. (Amended) The method according to claim 3129, wherein the authorization input is a biometric associated with the user~~device is a sensor.~~

36. (Amended) A computer network comprising:
a server;
plural computer systems coupled to said server, each computer system including,
a host computer coupled to said server;
a main display unit, coupled to and controlled by said host computer, said main display unit configured to receive first ~~display~~-information associated with~~from~~ a first application launched by said host computer and displaying the first ~~display~~-information; and
an auxiliary display unit coupled to and controlled by said host computer and distinct from said main display unit, said auxiliary display unit physically remote from said main display unit and configured to receive second ~~display~~-information associated with~~from~~ a second application launched by said host computer, said auxiliary display unit including and
a display for displaying the second display-information, and
an input user interface dedicated to said auxiliary display unit and configured to receive inputs allowing user interaction with the second application in response to the second information being displayed on said display.